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ABSTRACT

The North Warwickshire (England) College of Technology and Art created student profiles of students enrolled in a precaring course, a one-year course conceived as an introduction to work in the caring field for young people of low academic achievement. It was decided that a master profile should be created to cover all low-level courses across the college. Subjects were split into their component parts and skills, and for each objective, four levels of achievement were defined by a concise statement of what a student could reasonably be expected to do. (Four levels, from low to high, were chosen for ease of measurement and feasibility.) Staff wrote the descriptors in positive terms emphasizing what could be done by the student at each of the four levels. As far as possible, the descriptors were capable of being objectively tested and written in language understandable to students. The descriptors were put into a checklist scheme that could be used by instructors for student evaluation. Scores (from 1 to 4) for students on each objective were fed into a minicomputer program that printed out the program for each student. These profiles were used for end-of-the-term assessment of the students (although the profiles were to be used monthly in later courses). Students reacted favorably to use of the profiles. Some said they were "amazed at all they could do." Using a computer made the profile program possible, and it was concluded that such a program is useful and feasible, but that a close liaison between the director of the project and the computer staff who are actually programming the operation is necessary. (Directions for programming the profiles are given in the report.) (KC)

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ED237651

An Occasional Paper

Computer aided profiling

A case study
at the North Warwickshire
College of Technology and Art

Brenda Maxfield
North Warwickshire College of Technology and Art

CE 037495

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Dear Sir/Madam

COMPUTER AIDED PROFILING - A CASE STUDY

I enclose a copy of the above report which describes in some detail how a college approached the application of computers to student profiling.

The FEU has in numerous other publications extolled the virtue of using student-profiles, but it is generally agreed that initially at least it increases significantly the burden on teachers, particularly course or team co-ordinators. Computers, are a possible solution to part of this problem.

In this report, Brenda Maxfield describes how North Warwickshire College approached the computerisation of student profiles for a full-time vocational preparation course in Caring. The processes of profile design, based as they are on a meticulous analysis of the curriculum and a detailed construction of descriptors, show that this is no easy option. The principle adopted was that the system should not in any way dictate or limit the curriculum. In serving this principle, the profile not only goes well beyond many other attempts which are content to relate profiling to simple grades or numbers, but it is shown to have a motivating effect on the students.

"They were delighted with it, surprised that they 'could do all that' and eager to see... where the next stage was leading." The staff too, were pleased with the outcome.

Although this study relates to a mini-computer,* this report gives the basic processes and specifications that need to be fulfilled in setting up any computer-aided profile. As such it should be of value to advisers, college management and staff considering similar enterprises.

Yours faithfully

Jack Mansell

JACK MANSELL
Chief Officer

* Details of other FEU projects in this area, related to micro-computers, can be obtained on request.

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III

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Introduction and Acknowledgements

Although the aim of this report is to describe the processes involved in creating a computer-aided profiling technique to cover courses across the range of subject areas offered in a college of further education, the implications and ramifications of such a development have been vast.

The report sets out to describe the background against which the idea evolved, the design of the profile, its computerisation, the means by which the ideas have begun to be further disseminated throughout the college, the implementation of the profile on one course and the lessons which have been learned as a result.

However, other issues which have been raised include the impact of profiling on staff/student relationships, the necessary staff development, liaison across agencies, etc. Computerisation of the profile, initially seen as a way of storing and rapidly retrieving large amounts of information, has led to a lively debate. While the use of computers raises various ethical problems which must be solved, it cannot be denied that the flexibility, speed and convenience which the computer affords could answer many of the problems to be faced by colleges of further education in adopting profiling systems.

An idea is of little use unless it can be put into operation. The idea for this project would have withered very early in its life if it had not been for the unstinting support and work done by Bill Cotton and Neil Greenaway developing the computer side of the project, Christine Besanko in her role as course tutor for the pilot scheme, all the staff who taught on the course, the girls of the Pre-caring Course and the members of the North Warwickshire College Vocational Preparation Working Party.

This project was truly a team effort and perhaps is in itself an object lesson in what can be achieved in a short space of time if people work together towards a common aim.

1 The Background to the Project

1. In November, 1978, the North Warwickshire College of Technology and Art (NWCTA) became one of the Phase 1 colleges of the West Midlands Regional Curriculum Development Unit's 'cascade model' for staff development. Through this project some staff were introduced to the work of the FEU at that time concerned with the 'new' student in FE mainly on MSC sponsored courses. The work being developed included negotiation with students, the idea that the process involved in learning was often more important than the end product, and new forms of recording assessment and evaluation, most notably profiling (although *Developing social and life skills*, FEU, 1980 was more concerned with profiling course content than student progress).

2. In the year 1979/80, the General Education Department piloted the FEU's ideas presented in *A basis for choice** and this confirmed the principle of a core of skills and experiences necessary for the 16-19 age group and also re-affirmed the principles of profiling as a means of recording assessment and learning experiences. The North Warwickshire College was also running a number of MSC courses on which the ideas of student negotiation and individual learning programmes were being tried.

3. Therefore, by June 1981, when the Warwickshire LEA held its residential course for FE staff, now known as the Woodside Conference, under the heading of 'The "New" Student in FE' there was a small but determined nucleus of staff at this College committed to the ideals behind the methodology which has arisen to try to cope more effectively with these students.

4. The problems posed to FE staff are, by now, familiar: how to deal most effectively with students, usually of low academic ability, who are unemployed, unmotivated, disillusioned with the education process as they have experienced it in schools, resentful of being kept in a state of dependence away from the status-conferring world of 'real work' and liable to give vent to that disillusionment and resentment in disruptive behaviour. If, to this, is added the fact that staff were deprived of their customary 'delivered syllabus' and were no longer teaching to a pre-determined programme for a pre-defined, specified end-test, the extent and amorphous nature of the predicament becomes much clearer.

5. An initial solution was for staff to define for themselves their subject content, its stages of progression and its possible means of evaluation and to be able to justify this to the student not simply in terms of what they might need for employment but also of what they might need for survival in everyday situations. To achieve this, an attempt was made to break down some of the 'core' areas – literacy, numeracy, social and life skills (SLS), job seeking – into clearly-defined components and to try to compile a concise, specific statement to summarise what a student might be expected to have achieved at each of four levels of attainment. This was, therefore, following the model of the profile grid at the end of *A basis for choice 1st ed.* The descriptors were phrased in as positive terms as possible, what the student *could* do rather that what he could *not* do, to avoid the reinforcement of the negative achievement which many of the students involved had experienced in their school careers.

6. By June 1981, the literacy, numeracy and SLS areas had been broken down in this way, so forming a basis for course design and evaluation in consultation with the students and giving much clearer guidelines for staff, many of whom were inexperienced.

7. One of the main topics at the Woodside Conference referred to above was the question of assessment: how it should be undertaken and for whose benefit – the staff, the student, the prospective employer, who? Also raised was the question of how much staff time was going to be involved in the processes of profiling being recommended by *A basis for choice* and City and Guilds 365. The problems and obstacles seemed insuperable until the possibility of using computers was mooted. It was then that NWCTA staff realised that, with the aid of their new college computer, they had the embryonic form of a tool which would create an integrated approach across the college to course design, assessment and recording progress, which would also provide the basis for guidance, counselling and student negotiation across all aspects of the course and give a complete statement, either on VDU or as a printout of a student's level of achievement, in all subjects at any point in his/her course. The computer could be programmed to give a printout of the highest level of achievement for each separate section of each subject area and so would avoid the possibly negative results which were inherent in the system of ticking boxes on the

*The FEU published the 1st edition of this document in 1979. A 2nd edition was published in December 1982.

previously recommended grid systems. By ticking a box at level 3, for example, the tutor makes it very clear to everyone that the student has failed to reach levels 2 and 1.

8. Happily, the imminent introduction of new, rate-borne, one-year, full-time, low-level courses in September, 1981, would provide the opportunity to begin to test this idea, and, as one of the members of the Woodside Conference was to be responsible for one of these courses – labelled the Pre-Caring Course – this was selected as a pilot scheme for the academic year 1981/82.

2 The Profile Design

9. The scheme which now evolved was that there should be a 'master profile' which would cover all, initially low-level, courses across the college. Staff were approached and asked to contribute profile 'grids' for their specific subject areas. Subjects should be split into their component parts and skills and, for each 'objective,' four levels of achievement should be defined by a concise statement of what a student could reasonably be expected to do at each of these levels. Four levels were chosen rather than three or five or any other number because it was felt three would not give a sufficient range of achievement while five or more would make the project unwieldy. Staff were asked to write the descriptors in positive terms emphasising what *could* be done by the student at each of the four levels. The levels of achievement should be cumulative so that students would build on each level to reach the next and a statement that, for example, level 2 had been reached would automatically imply that the implicit 'knowledge' for levels 3 and 4 had been achieved (level 1 is high, 4 is low). As far as possible, the attainment of the statement or descriptor content should be capable of being tested by objective means, although it was recognised this would not always be feasible and that a degree of subjectivity is always present in assessment procedures. The descriptors should be expressed in language understandable to the students concerned as they would be major participants in the process. The distance between the levels of achievement should not be too large, otherwise real progress in the students' view would be too difficult to achieve.

10. The descriptors, while defining hoped-for products, in no way dictate the methods by which subject content should be taught and the profile should not be regarded simply as a substitute syllabus.

11. While, for each teacher, assessment is a continuous, on-going process, ideally involving the student in a meaningful dialogue about progress made, this should be formalised at regular intervals – perhaps monthly – and, through a process of consultation and negotiation between the teaching team and the student, the progress of each student on each objective should be recorded on the documents shown in Figures 1 and 2 overleaf.

In Figure 1, the list on the left-hand side describes the subject areas chosen to be included in the course. Each subject area can be split into 20 sub-sections or 'objectives'. On the matrix there are, therefore, 20 divisions for each subject, one square representing one objective and numbered 1-20, matching the numbering on the master profile. Those squares which are shaded represent objectives not being used on this course.

12. Each member of staff has one of these sheets for each student, and the member of staff fills in an assessment (numbered 1-4 to match the descriptors) for each objective which he/she feels an interest in. Hence, several staff might fill in assessments for literacy (or some aspects of literacy) while only one member of staff might fill in the Home Economic section.

The course tutor can then collate the grades on to one sheet (as in Figure 2) and transfer these to the computer which will then translate the numbers back into descriptors and display them when required.

13 There are some subjects like Literacy which go across the curriculum and several staff would, therefore, have a legitimate claim to contribute to literacy assessment. This has the result of making the student more aware of the interdependency of subject areas which are too often presented as being mutually exclusive. Staff also become much more aware of the content of other subject areas and the way in which their particular discipline may contribute to them.

14. There is always a possibility that two or more staff may disagree on the level of achievement of a student on a particular objective. This could be caused by a variety of factors – suitability of teaching methods, relationships between tutor and student to name but two – and may be resolved through discussion. Where the difference in opinion remains, the student should be given the benefit of the highest level of achievement recorded and the staff should ask themselves why there is the discrepancy in the level of achievement of that student between their respective subject areas, and learn the lessons to be drawn from the situation.

15. The student should also be a part of the assessment team; after all, he is the subject of the exercise. He should be given the opportunity to question the staff's evaluation of his work and to clarify his own self-assessments where these differ from those of his tutors.

NWCTA Profile Assessment Scheme

Teacher's Name:

Date:

COURSE UPDATE DOCUMENT

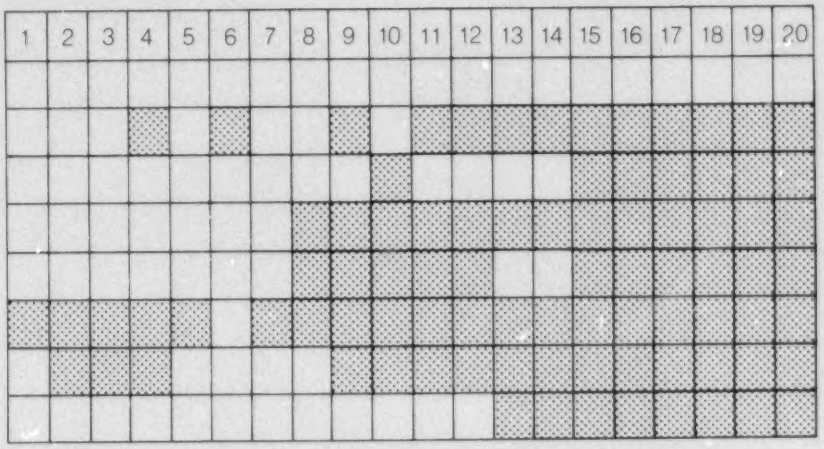
COURSE TITLE: PRE-CARING

STUDENT:

DATE:

COURSE SYLLABUS:

1. Literacy
2. Numeracy
3. SLS
4. Job Seeking
5. Personality
6. Physical Education
7. General Practical Skills
10. Home Economics



COURSE TUTOR: R.225 Int. Tel: 11.

Figure 1 – An individual's assessment sheet and *below* **Figure 2** – A collated assessment sheet

NWCTA Profile Assessment Scheme

Teacher's Name:

Date:

COURSE UPDATE DOCUMENT

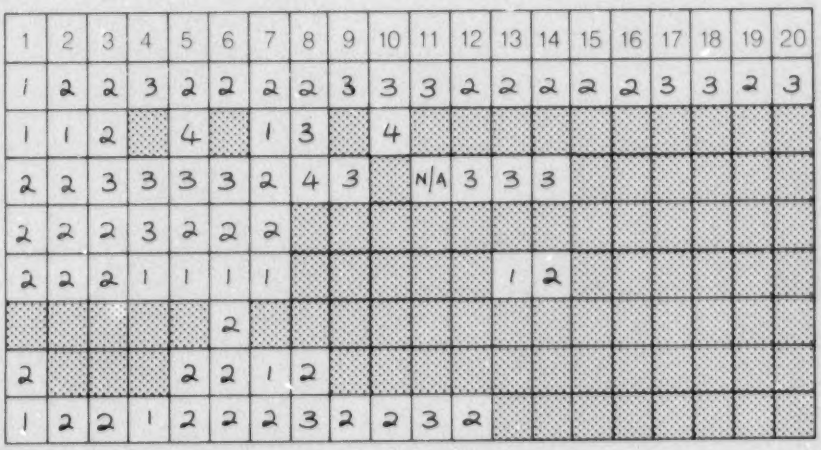
COURSE TITLE: PRE-CARING

STUDENT: A. N. Other

DATE: May 7th 1982

COURSE SYLLABUS:

1. Literacy
2. Numeracy
3. SLS
4. Job Seeking
5. Personality
6. Physical Education
7. General Practical Skills
10. Home Economics



COURSE TUTOR: R.225 Int. Tel: 11.

16. Supervisors on work placements have a very important part to play as members of the assessment team and have much of significance to contribute to evaluation of students' activities and progress and to the relevance of their activities and learning in the educational institution.

17. The information accumulated from regular assessment meetings can be transferred to the computer, on a document similar to that shown in Figure 2, which would store the highest level of achievement for each student in each objective, and, when required, reproduce this on VDU or give a printout of that information. An example of such a printout is shown in Figure 3 giving the lowest level of achievement at all stages.

Figure 3. Printout of a profile assessment

STUDENT PROFILE ASSESSMENT

Course Title: PRE-CARING

Student:

Date: 07-Jun-82

LITERACY

1.01 READING
Reads fluently without hesitation, and in an intelligent manner, a wide variety of reading material including books, newspapers etc.

1.02 INTERPRETING WRITTEN MATERIAL (PROSE)
Can understand a variety of written material if written in straight-forward manner.

1.03 INTERPRETING DIAGRAMMATIC MATERIAL
Understands most forms of diagrammatic presentations, but unsure about the more complex systems.

1.04 DRAWING DIAGRAMS
Can produce simple sketch maps or diagrams.

1.05 HANDWRITING
Handwriting is clear and easy to read in joined script. Fluent in execution.

1.06 PRESENTATION AND APPEARANCE OF WORK
Work usually shows care in presentation – some room for improvement.

1.07 VOCABULARY
Some attempt at developing range of words used. Fluent but limited.

1.08 GRASP OF CONVENTIONAL LETTER LAYOUTS
Can write an acceptable letter observing most of the conventions of letter layout.

1.09 SIMPLE DESCRIPTIONS
Can describe with help how to perform simple operations.

1.1 SIMPLE FACTUAL REPORTS
Can give in a reasonably ordered fashion an account of straight-forward events. May omit points.

1.11 FORM FILLING
Can cope with most forms in a legible and accurate manner.

1.12 USE OF DIRECTORIES, ALPHABETICAL LISTS, INDEXICES etc.
Shows good grasp of alphabetical arrangement and has some knowledge of where to begin to look for information.

1.13 LISTENING
Listens well inder ideal conditions – needs reinforcement on instructions.

1.14 PERSONAL ORAL COMMUNICATION
Can cope with most one-to-one encounters. Needs encouragement to sustain interchange.

1.15 GROUP ORAL COMMUNICATION
Will take part if encouraged.

1.16 USE OF TELEPHONE
Can use public and private telephone effectively in most situations.

1.17 SYNTAX
Writes inaccurately constructed simple sentences. Limited use of relative clauses.

1.18 PUNCTUATION
Can use most punctuations accurately.

1.19 SPELLING
Can spell most words accurately.

1.2 ORGANISATION OF IDEAS
Can organise familiar ideas in coherent fashion.

NUMERACY

2.01 FOUR RULES
Can perform a range of skills – perhaps using a calculator for more difficult examples.

2.02 TABLES
Can utilise most tables up to 12 times with acceptable degree of accuracy.

2.03 PLACE-VALUE
Grasps place value significance in most straight-forward examples.

2.05 FRACTIONS – FOUR RULES
Can cope with very straight-forward calculations. May have difficulty in transferring the principles to situations.

2.07 STANDARD UNITS
Conversant with units – can compare imperial with metric and work with some ease in all modes, read timetables etc. Reasonably accurate in estimating. Measures accurately with variety of instruments.

2.08 RATIO AND PROPORTION
Can deal with more straight-forward relationships eg scaling up a half to a whole number relationship.

2.1 PERCENTAGE
Can cope with most straight-forward examples. Can apply basic ideas to situations under supervision

SOCIAL AND LIFE SKILLS

3.01 BUDGETING
Can draw up a personal budget sheet and has realistic ideas on possible expenditure
3.02 PRICE/VALUE—ADVERTS
Can make straight-forward comparisons between sizes and/or prices. Susceptible to forceful advertising
3.03 BANKS AND BANKING SERVICES
Understands most bank functions but may be reluctant to use them
3.04 POST OFFICE SERVICES
Understands most of the services offered by the GPO
3.05 BUILDING SOCIETIES
Has a basic understanding of how a Building Society functions. Could open a savings account or apply for a mortgage with a bit of help
3.06 INSURANCE
Understands purpose of insurance and how to go about obtaining insurance for various purposes
3.07 CONSUMER LAW
Is fairly conversant with consumer law and could establish rights in most of the probable instances. Usually demonstrates a constructive and helpful attitude to preservation of law and order
3.08 LOCAL AUTHORITY SERVICES
Is aware of the main services offered by the local authority. Would know where to get advice if needed eg. CAB
3.09 LIBRARY SERVICES
Is familiar with the workings of at least one local library, can find information usually without help and knows some of the available ancillary services
3.11 LEGAL AID
Is aware of rights regarding bail arrest. Knows where to get help eg. Citizens Advice Bureau
3.12 ACCOMMODATION
Is aware of the main sources of information concerning accommodation. Possesses some of the skills necessary for maintaining property and is aware of major differences between renting and owning
3.13 FURNITURE/HEATING
May need help in selecting suitable furniture etc
3.14 EDUCATION SERVICES
Has an incomplete knowledge of the educational facilities in the area. Attitude towards continuing education is ambivalent and easily influenced by peers

JOB SEEKING

4.01 EMPLOYMENT ASPIRATIONS
Has begun to look at requirements of some job areas, and has begun to make some connections between these and own self-assessment but needs much help and guidance

4.02 JOB SEEKING
Needs help in exploring sources of situations vacant. Needs help to reach realistic assessment of own preferences, qualities and qualifications, and in selecting an appropriate job
4.03 APPROACH TO JOB APPLICATIONS
Creates a favourable impression through some preparation and some awareness of the importance of appearance and presentation
4.04 JOB APPLICATIONS BY 'PHONE
States reason for phone call and takes down basic information accurately. Gives personal particulars accurately
4.05 JOB APPLICATIONS BY LETTER
Letter reasonably neat with acceptable layout, on adequate stationery. Reasonable structure, spelling and punctuation adequate
4.06 JOB APPLICATION FORMS
Completes items of factual information accurately but answers other questions only shallowly. 'Undersells' self. Produces a reasonably neat and attractive application
4.07 INTERVIEWS
Presents self at interview in good time and reasonably well-groomed and dressed. Speaks reasonably well and answers questions adequately. Asks questions of interviewer when given the opportunity

PHYSICAL EDUCATION

6.06 GROOMING AND HYGIENE
Understands the need for personal hygiene and grooming and can achieve this with some guidance

GENERAL PRACTICAL SKILLS

7.01 APPROACH TO PRACTICAL SKILLS
Can recognise some jobs which need to be done, and may seek information on best approach. Prepares rather haphazardly. Understands main tools. Safety procedures may need to be checked. Clears up reasonably well
7.05 BASIC ELECTRICAL WORK
Can undertake very simple electrical jobs. Safety procedures may need supervision – may have unrealistic expectations
7.06 HOME MAINTENANCE
Can undertake simple household tasks. Safety procedures may need supervision – may have unrealistic expectations
7.07 SEWING
Can produce a basic range of clothes and furnishings using commercial or own patterns. Results are satisfactory, often pleasing
7.08 COOKERY
Can produce a range of basic meals/snacks. May not be nutritionally sound. Presentation very basic

HOME ECONOMICS

10.01 PERFORM PRACTICAL TASKS IN LOGICAL SEQUENCE

Can carry out simple tasks with the help of teacher's instruction at intervals

10.02 CHILDCARE

Would be able to cope after some instructions, in most situations if necessary

10.03 FIRST AID

Has only a rudimentary knowledge of what action to take in a situation requiring first aid. Could perhaps cope with very basic requirements, eg how to control a faint

10.04 COOKERY

Can prepare and serve a small range of dishes to an acceptable standard with some help with planning and execution

10.05 NUTRITION THEORY

Has a reasonable knowledge of the main nutrients and can relate these to the food prepared and presented

10.06 HOME TASKS

Can carry out some tasks without supervision but on the whole needs supervision and guidance

10.07 NEEDS OF RESIDENTIAL ESTABLISHMENT

Would be able to contribute in some areas of a residential establishment

10.08 PLACEMENT

Has some appreciation of others but lacks understanding of the needs of others and would only be able to do this job with guidance

10.09 FAMILY LIFE

Has some understanding of the needs of a family and the part to be played in the everyday needs of a family

10.1 AWARENESS OF SPECIAL GROUPS' NEEDS

Has some understanding of groups of people with special needs but has yet to communicate in a mature manner

10.11 OWN SOCIAL CONTRIBUTION

Understands some parts that can be contributed to society as a whole and can play a leading role with some guidance

10.12 ART AND CRAFT

Has only shown understanding in a limited way and finds some difficulty in relating skills shown

Course Tutor

18. If the institution is running a course for which the knowledge and skill requirements are already known, then the course outline can be defined prior to the start of the course. If the course is vocationally specific then the course tutor should have a very good idea of what the course content should be and what standards are required of the students by the end of the course. In this situation, the course tutor, in consultation with the teaching team can select from the master profile those subject areas and the specific objectives from within those subject areas which need to be covered on the course (any areas which may be lacking can then be compiled by the relevant 'specialists'). The course tutor then has a complete outline of the course content and can allocate areas to particular staff noting where there are overlaps of subject matter (where two or more staff are concerned with the same content) and where there are marked interdependencies of subject matter. Each member of the course team also has a much clearer idea of what is going on in the other subject areas and how their work contributes to the overall scheme.

19. The profile also has a valuable role to play in informal learning situations or courses of which the content is not pre-determined. After an intitial induction or orientation phase, during which a student may be sampling opportunities, deciding on possible options and settling into the institutional framework, an individual learning agenda can be compiled through negotiation and then student and staff can 'key-in' to the substructure provided by the profile, to chart progress, provide a basis for counselling and give an up-to-date statement of achievement whenever required.

20. The profile may, therefore, be utilised from an institutionally-determined course approach or from a completely student-centred approach.

3 Institutional/ Management Issues

21. The advent of the 'new' FE student has posed many difficult problems, mainly in the areas of curriculum and staff development. Much valuable work has already been done in identifying the needs of these students and there is much theorising about the best ways of satisfying these needs. However, just as the most thorny area, as far as our teaching of the students is concerned, is that of attitude change, so the biggest hurdle to be faced by innovators in the pedagogic field is the attitudinal changes required of the teachers.

22. Understandably, many college staff feel very threatened by the developments which are being introduced. This is something to which many of them are totally unaccustomed and it undermines their stable foundation of ideas and practice. There is at least an equal number of staff who have been so buffeted by change in the last few years that their reaction to any new idea is cynical and sceptical – "Oh no: not another educational panacea!"

23. In *The planning of change* (Holt, Rinehart and Winston, 1969), Bennis, Benne and Chin described three kinds of innovation strategy: power/coercive; empirical/rational; normative/re-educative. The power/coercive strategy, a methodology dictated from above, depends on political, administrative and economic resources and was wielded with the formation of the Technician Education Council and The Business Education Council. The use, in these cases, of the power/coercive model was facilitated by the fact that the two Councils were able to draw on the expertise and experience of existing, recognised practice in the Technician and Business Education fields. When there is a dearth of recognised experience in a specific field it is far more difficult to employ power/coercive strategies. It is possible for a government department or agency to say to the FE sector, "You will do..." but it becomes much less possible to dictate how it shall be done.

24. There is, therefore, at least one reason why the innovation in the 'new' FE provision may not be managed by power/coercive methods. There is also a much more fundamental reason why such strategies would be impractical for and even destroy the new work. More and more people believe that one of the major contributory factors to success with the new FE students is the degree of commitment of the teaching staff concerned. They must believe in what they are trying to do or, at the very least, perceive a rationale for the suggested methodology. This involves a change of attitudes, relationships, values and skills on the part of the teacher and, therefore, an actuation of forces within the user sytem (the institution staff). Very few people, perhaps least of all teachers, will change their basic beliefs just because someone tells them they must. It is the result of a gradual process of persuasion and re-education – the normative/re-educative strategy. If teachers feel they cannot fully commit themselves to new ideas and methodology, it may be possible to reach a compromise by demonstrating to the sceptics that the methods and ideas do have a firm basis and do work (the empirical/rational approach). This was one of the reasons why the NWCTA profile was developed and tested against one course in the first year.

25. A central factor in the discussion, formulation and dissemination of ideas relevant to and supportive of the profile was the formation of the college Vocational Preparation Working Party (VPWP). The nine members of staff drawn from all departments who attended the Woodside Conference in June 1981 decided to continue to work together to act as a 'think-tank' and possibly a pressure group to try to assist in the development of ideas and resources seen as necessary for vocational preparation work in the college. This group has met once a week during the academic year 1981/1982 and has produced working documents which have been presented to Academic Board and the Principal.

26. The interest and support shown by the Principal, with whom representatives of the group have frequent meetings, and the fact that they are represented on Academic Board has facilitated the work of the VPWP. The group has also run two day conferences – one on 'Students with special needs' and one on 'Issues raised by voc. prep. and NTI' – and evening seminars to spread ideas on vocational preparation in general and profiling in particular.

27. One of the great strengths of the VPWP is that its membership is drawn from all departments and the group has not been seen to be dominated by any one section of the college. Interested Heads of Department deliberately stayed detached from the group to aid this non-factional identity, although, with the re-organisation of the college

on a partial matrix system, three Heads of Department with responsibility for Course Development, Curriculum Development and Staff Development can now become acknowledged members of the group, thus greatly assisting the work in hand.

28. It would be dishonest to suggest that the work done this year in development of ideas and their dissemination has been easy or that it has met with total success and acceptance. However, much of the hardest work has now been done: we have shown, albeit only on one course, that our ideas do work in practice; we have developed and put into operation a complex system which can now be expanded and refined; many of the staff are now fully supportive of the ideas of our profile; many more staff are aware of the issues of profiling and the other questions raised by the 'new' students and are discussing them in a relatively informed manner.

This is the achievement of 1981/1982 on which we now hope to build.

4 Implementation on the Pre-Caring Course

29. The Pre-Caring Course is a one-year course conceived as an introduction to work in the caring field for young people of a low academic achievement. In practice, it has become a substitute first-year component of the two-year Home Management and Family Care Course. Students who have reached a satisfactory standard on the Pre-Caring Course can, after due consultation with senior staff, transfer into the second year of HMFC.

30. The areas in which the students should be proficient by the end of the course were comparatively easy to define as this programme was leading to a known end, with known requirements, and the applicants for the course ostensibly had some prior knowledge of which area of work they eventually wanted to enter (I say ostensibly because this raises issues about school careers preparation, induction to the college, etc. which are too vast to deal with here, but will, hopefully, be examined in detail in future research).

31. The course tutor, therefore, in consultation with those members of the course teaching team who were then known, defined the subject areas and the particular sub-sections of those subject areas which would together compose the Pre-Caring Course. The areas and sub-sections selected were:

Literacy

Reading
Interpreting written material (prose)
Interpreting diagrammatic material
Drawing diagrams
Handwriting
Presentation and appearance of work
Vocabulary
Letter lay-outs
Simple descriptions
Simple factual reports
Form-filling
Use of directories, alphabetical lists, etc.
Listening
Personal oral communciation
Group oral communication
Use of telephone
Syntax
Punctuation
Spelling
Organisation of ideas

Numeracy

Four rules
Tables
Place-value
Fractions
Standard units
Ratio and proportion
Percentage

SLS

Budgeting
Price/value
Banks and banking services
Post office services
Building societies
Insurance
Consumer Law
Local authority services
Library services
Legal aid
Accommodation
Furniture/heating
Education services

Job-seeking

Employment aspirations
Job-seeking
Approach to job applications
Job applications by phone
Job applications by letter
Job application forms
Interviews

Personality

Self-assessment
Honesty
Fairness
Reliability
Punctuality
Conformity to standards
Courage
Control of feelings
Response to aggression

Physical education

Grooming and hygiene

General practical skills

Approach to practical skills
Basic electrical work
Home maintenance
Sewing
Cookery

Home economics

Performing tasks in logical sequence
Childcare
First aid
Cookery
Nutrition theory
Home tasks
Needs of residential establishment
Placement
Family life
Awareness of special groups' needs
Own social contribution
Art and craft

At no stage was there any question that the profiling system we had devised should dictate or limit the curriculum in any way. We hope we have made it sufficiently flexible to add, subtract or alter components as required. We have at no point felt that the course content has been "solidified"; it is a dynamic process which should be capable of modification to suit the students' needs. By trying to concentrate more on the principles of knowledge and skills, rather than on surface facts and applications, we feel we have a meaningful structure and, at the same time, the flexibility to suit a variety of circumstances. It would be putting the cart before the horse if the system were allowed to determine the curriculum.

32. Not all the areas listed had been broken down for the profile grid, so the first task was to analyse the missing subjects and write descriptors for them. The staff who were approached to do this agreed willingly once the scheme was explained to them, and, after initial help, were happy to compile their grids. Nearly everyone who was involved in this work expressed great surprise at the degree of careful thought, analysis and subtlety of expression which was required to define levels of achievement and to think in terms of what students could do. This emphasised how meaningless many of the statements which consistently appear on students' reports really are. An oft-heard comment from staff busy compiling grids was that they had never really thought so long and so hard about what their students had to master to reach an acceptably proficient standard. Even if the profile were never used as an on-going tool in the active teaching process, the task of actually compiling it was the biggest staff development exercise ever conceived at this college.

33. It was fairly easy to define the top level of achievement, and it was not too difficult to conceive, in general terms, what was the achievement level at the lowest grade, although it was often very difficult to express this in positve terms. Many of the lower level descriptors on the grid still contain very negative statements, but these are gradually being weeded out and re-worded.

34. The words in which the descriptors are couched must mean something definite. This would seem to be an obvious statement, but it must be borne in mind that it is very easy to use words which can mean six different things to six different people. Again, we know that our profile is not perfect in this respect but we are working on it.

35. When descriptors for all the main areas of the course had been compiled, the tutor mounted them on boards and hung these in the girls' teaching area so that they would have a constant point of reference, concerning their course content and how they were progressing. They would also see by what criteria we were assessing them. The tutor was also able to clarify which members of the teaching team would be chiefly responsible for areas of the course and, because the team could see the content of all of the course, we were much more aware of the part we were to play in relation to one another.

36. During their first few days in college, the girls were given an explanation of the contents of the boards and their significance in the assessment procedure although it is very doubtful whether any of them really understood the scheme at this point.

37. In the first literacy/communications lesson, it was possible to explain to the girls what we were hoping to

achieve by the end of the course and why these objectives were relevant to their chosen job areas. The girls were then asked, individually, how they rated themselves on each of the objectives and this very quickly provided a picture of which areas of communication had been thoroughly covered in the schools and which had been lacking.

38. This kind of initial analysis in one subject could be, and is, done without a profile grid but the fact that the communciations teacher knew, in some detail from the outset, how her subject linked to all the others on the course and how those areas were being assessed made it much easier to encourage in the girls an integrated approach towards their work across the course, instead of the compartmentalised attitudes towards subjects which tend to exist.

39. Our work using the profile has shown up many areas like the one cited above of what are defined as 'good teaching practice' which, one hopes in a vague way, are being carried out but which are often lacking because the tools to facilitate their implemantation are lacking. We think that the approach to teaching encouraged by a tool such as the detailed profile grid in many ways encourages the development of such good teaching practice.

40. Another interesting point which emerged from the initial discussion with the students on what standards they had reached on the various objectives was the extent to which they had unquestioningly accepted the assessments given by their school teachers, whether or not they were actually accurate or whether the students agreed with them or not.

41. Throughout the course of the year discussions were held with the students about their progress, relating what they had done to the descriptors on the boards. The girls were encouraged to take a much larger responsibility for their own assessment of progress made and slowly some of them began to understand what was being offered to them and to take advantage of those opportunities. It is only fair to say that some of the girls never really understood the system being operated.

42. Matrons and supervisors in the homes to which the girls went on work-experience placements were asked to contribute to the profile assessment and were very pleased to do so. Their comments were a very valuable part of the whole procedure and formed an obviously invaluable link between learning in the artificial setting of the college and the 'real' world of work. The matrons also found it helpful to see what the girls were doing in the college and they also, therefore, felt the benefit of the much more integrated approach to the girls' training.

43. Meanwhile, the computer staff were developing the program for running the computer and this was ready by the end of the Easter holiday. The first run-through of fully-updated student records and subsequent printout was on May 12th.

44. The reaction of all the girls to their first printed profile was most encouraging. They were delighted with it, surprised that they 'could do all that' and eager to see where they were on the boards and where the next stage was leading. There were signs, therefore, that, if we had been able to operate the entire computer system from the beginning of the course, there would probably have been a strong motivational element in the production of the printout. A large proportion of the girls also expressed pleasure at the idea that somebody 'cared enough about us to do all that work.' There was little doubt in the minds of the teaching team that having the course elements spelt out in detail so that the girls could chart their progress and knowing that this was backed up by 'the latest technology' to provide a helpful product for them did help to motivate the girls.

45. All of the staff concerned with this course support the idea of the profile. They have found it a helpful foundation from which to work and feel that it has benefited the girls. The course tutor summed up this feeling when she said, "I feel a lot healthier about teaching these courses now because I have a structure."

46. The girls' views were elicited in an informal discussion on the last afternoon of the course. Two of them, the lowest achievers, had not really 'twigged' what was going on. The rest felt pleased that they had been more involved in the whole learning/assessment procedure. They thought they had benefited from an increased awareness of what they were doing and why. One girl said that, while she accepted her profile as a true picture of her level of achievement, she wished she had 'something more

flattering to take to an employer. She was surprised to discover that what was said on her profile was exactly the kind of thing that would have been said on an ordinary reference and it was obviously a salutory experience for her to realise that references are honest rather than flattering. One girl expressed dissatisfaction about her level of achievement; she said that she felt annoyed with herself because she had got to the end of her first year and had left herself with so much more to do during the next year. This is a view that would, under more normal teaching conditions, have been imposed by the staff and would, very often, have been received with disbelief and resentment, which are counter-productive. As it is, the girl can see for herself what more she has to do and that realisation is a valuable product. The girl who has made perhaps the greatest progress over the year said, "I think it's a great idea; it makes you want to work harder to get on to the next stage."

47. Other comments about the printed profile included:

"They tell you more about what you have done";

"They would be more helpful to an employer";

"All our parents should see this and be able to discuss it"

The statements were felt to be accurate, not distorted or unfair. One girl remarked, "At school we were just told to get our books out and copy pages so-and-so. The boards make it much clearer." On the whole the girls welcomed the idea of participating in their assessment, although there was a feeling that they would prefer to deal with one teacher at a time rather than be confronted by the whole teaching team at once.

5 Computerisation

48. The central issue of this project has been its suitability for computerisation. The person mainly responsible for the conception of the scheme had no knowledge of computers and was, therefore, completely dependent on the college computer staff to implement the proposals. The way in which they took up the challenge and solved it was remarkable.

49. One lesson that was learned very quickly is that, if such a project is to succeed, there must be very close liaison between the project leader and the computer staff who are actually doing the work. It is not possible to work through a third person. Also, there must be an agreed statement, in writing, about the details of the project if all is to proceed smoothly. A copy of our current specification is shown in Appendix 1. Without such a document, a project of this complexity would quickly become unmanageable and there would, almost inevitably, be discrepancies in the interpretation of the details of the scheme. Once it is down on paper, everyone knows what they are working to and misunderstandings are minimised. Writing a computer program of such complexity is an extremely difficult and time-consuming operation. The program for our system took three months to develop, and it would have been a terrible waste of time and effort if it had had to be changed half way through. The communication of complex ideas is a notoriously risky undertaking, with the possibility of misunderstandings which could be very costly. It is, therefore, necessary to specify details as precisely as possible to reduce the chance of misinterpretation to a minimum and, hopefully, to eradicate it altogether. Having to think through the system in such precise detail also highlights individual problems which could easily be overlooked in the grand overall conception, and these can then be over-come. A carefully worked-out and agreed specification will also provide a very sound basis for modifications in the future.

50. The College computer specification is as follows:

1 x Systime 5000E (DEC 11/34) CPU. with ½MByte memory

2 x 16 MByte Hard Disc Drives

13 x Syscope VDU. terminals

1 x Qume daisywheel printer

Full software support under RSTS. operating system

The project is programmed in BASIC

The memory size is	– 165 KBytes
Descriptors (40 subject areas, each sub-divided into a maximum of 20 objectives each with 4 levels of achievement)	– 2.64 MBytes
Students	– 1 KByte per student.

Therefore, to put 200 students into the system would occupy approximately 3 MBytes total. This memory has its own entry code and the program has been designed to be virtually idiot-proof. Even novices with a minimum of computer experience can quickly operate the system. To completely update a student's file and be given a print-out of his profile takes approximately 7 minutes.

6 Concluding Comments and Work to be Done

51 While profiling has been largely proved as a means of recording summative assessment, it would be a great opportunity missed if that was the only perceived use of this technique. For a considerable time, the year's academic work has been planned with a specific end-test in view, but, while the two processes have been complementary, they have rarely been fully integrated except in some Mode 3 schemes. The system in this report serves both formative and summative functions and, therefore, achieves that integration. There still exists the danger of 'teaching to an end examination' even if that examination no longer exists. Thus, the needs of the students may be ignored in favour of the needs of an examination. The use of a formative profile acts as a constant reminder that the students' needs should be the major consideration in planning courses. It also allows for individual needs to be recognised. As long as a profile is thought of as something which is superimposed on existing practice, there are almost bound to be problems in matching what happens in the classroom to what is to be profiled. On the other hand, if the profile is the vehicle which generates, underpins and records the learning activities, such disparities are eliminated.

52. Another important facet of integration is the bonding of work between possible dissimilar agents. Work with one student which spans two or more departments of the same college can seem disjointed and fragmented with possible common elements between the subject areas passing unnoticed by staff and student. Too often, rather than complementing each other, the various departments can seem to pull in opposite directions. These undesirable tendencies can be considerably magnified when the contributing agents are more separate, such as in the case of a student who learns partly in a college and partly in a work-experience scheme on an employer's premises, or of a school pupil on a course such as City and Guilds 365 who may do part of his course in school and part in college. It would be to the benefit of all, both staff and students, if they could work to a common basis spanning all of their work, not one isolated scheme for the educational input and one for training or vocational input. Thus, it would be far more possible for everyone to be part of a real team, the work of the members of which would be more truly complementary, to the benefit of the student.

53. The profile grid, which has been the main subject of this report, should not be thought of by itself as the complete profile. There should also be a log-book for the recording and evaluation of experiential learning. Such a log-book was used by the students of the Pre-Caring Course for their weekly placements in homes and hospitals, and an example of the document used each week is shown in Fig. 4 overleaf. The questions were designed to make the girls think about their personal encounters, what they had achieved, what more they needed to learn and how what they had done related to the work they were doing in college.

54. There should also be provision on the profile for the tutor to make some free comment which might qualify the pre-determined statements selected from the grids.

55. Our work this year has shown that there are problems to be overcome, but we do not regard these as insuperable.
The descriptors must be written with great care. They should be phrased as positively as possible, and in as inambiguous terms as possible. The steps between the descriptors should be clear enough to demarcate the individual stages but not so great as to make progress seem impossible. Also, as far as is possible, the descriptors should be linked to objectively testable skills or knowledge. A strategy which would help to overcome several of the above difficulties would be to define a checklist of desirable skills or knowledge for each 'objective', possibly with a 'must have' and a 'could have' component which could then be divided up to give the necessary criteria for allocation to each of the four descriptors.

56. The students must be able to understand both the working of the overall scheme and the terminology used in the descriptors and any other components of the profile. Ideally, they should take much of the responsibiltiy for their assessment and for their learning, although this may be difficult. As K. Richmond wrote in his book *The free school!*:
"Having sat at the feet of Sir Oracle for so long it is not surprising that most of them prefer to be told what to do and how to do it and feel utterly lost if the teacher suddenly witholds the kind of instruction they have come to expect."
Staff should be able to spend time, in the first instance, thoroughly explaining the system and then in consultation with the students discussing their programme and future

Name_____
Week No_____
Day_____
Date_____
Placement_____

Weekly Report

You have learnt something this week — write about it.

1. How were you received?_____

2. What jobs were you asked to do?_____

3. Were your duties clearly explained?_____

4. Describe briefly what you had to do?_____

5. Which of the skills listed on your course outline did you use?_____

6. What did you enjoy most?_____

7. Was there anything you didn't enjoy?_____

8. Was there a job you felt you could have done better?_____

9. How could you make yourself more prepared for your next week's placement?_____

Your personal progress report

Efficiency of work		Interest in work		Initiative		Timekeeping	
		Safety at work		Conduct		Learning Rate	

Lecturers remarks:

Signed:_____

Marking standard	Excellent	Good	Average	Poor	Unsatisfactory

learning. Time is a major consideration in all of this work, whichever system of profiling is being used: time for staff to talk to other staff; time for staff to talk to students; time for staff to talk to employers and so on.

57. The time involved has been one of the major reservations about profiling in general expressed by staff. We feel we have overcome at least some of the difficulties by employing what assistance technology can give us. At the same time, we have also overcome some of the negative aspects of the box-ticking use of profiling previously advocated.

58. The use of the computer raises an emotive issue connected with Big Brother and 1984. Records in storage should not be accessible to all-comers; this can be ensured by coded entry to memory discs. The length of storage of records after a student has left a scheme is a problem which must be solved by agreement among those in authority. The question of whose property the profile is and whether it should be used with or without a student's permission also has to be resolved. We would support the idea that the summative profile should be the student's property, to be used or not by him as seen fit.

59. The whole area of 'personality' assessment is also a contentious issue and must give rise to much discussion before it can finally be resolved. There are many arguments for and against the involvement of staff in this area. Although we included a section on personality in our work this year, this we later omitted on the instruction of senior staff. The ESN feeder schools have been very supportive of our work in profiling and have themselves begun the work of devising a sister scheme on the same plan to cover their work. It is interesting that the ESN schools insist that personality assessment should be included. The existence of a matching, complementary system in the special schools will make transfer from these schools to the college much smoother and will also assist staff in matching assessment when ESN pupils come to the college on day-release.

60. Similarly, there would be obvious advantages if 14-19 continuity could be achieved, across the school/college transfer, by means of a common form of assessment in the various institutions and it would help the 16+ age group to assume some of the responsibility for their own learning and evaluation if they had been inducted into this way of thinking before they leave school.

61. Much has been said about the usage and possible benefits of the profile scheme in educational/training establishments for the benefit of student and staff. Hopefully, the summative profile will also give an employer a much clearer picture of the work and ability of the student when he/she applies for a job.* There is much work still to be done here, liaising and consulting with employers about their requirements. They should be able to make a most valuable contribution to the compilation of checklists of necessary skills and knowledge to be matched against the four levels of descriptors and it is possible to envisage a completely integrated programme where a student could be given detailed fore-knowledge of the profile requirements of prospective employers for his/her chosen area of work. The involvement in student profiling of employers who offer work-placements will introduce our ideas to them and, through their contribution, we hope they will perceive the value of such a system and become more fully involved with it.

62. The more we think about profiling in general, and our system in particular, the more we realise how much work there is still to be done; but, at the same time, the more we realise what a tremendous opportunity we have within our reach to achieve the kind of unified approach to youth education/training/employment/lifelong education which has been so elusive in the past.

*see *Profiles* FEU 1982 : especially section 7 'Profiles in Recruitment': The View of the Personnel Profession.

APPENDIX I
The Computer Specification

Specification for Profile Assessment Scheme

A. Introduction

The software package will enable the following aims to be achieved: –

a) Store the curriculum profile in an easily accessible manner.
b) Facilitate the keeping and regular updating of student records of progress.
c) Facilitate the printing of an achievement profile for each student in the project.

The program will be accessed by a series of menus leading to the required facility. This approach will allow data to be entered, stored on file and student reports obtained, by non-programming personnel.

B. Data input

The data input will take the form of three types of documentation: –

i) Course Generation Document.
ii) Comment Documents for Sections within a Subject area.
iii) Course Update Document.

i) Course Generation Document.

This document allows a course tutor to specify the subject area and objectives within that subject area for a particular course. Due to the large number of subject areas the document must be specific for each course. This will enable the necessary computer files to be created for the course.

The following conditions have been established as being realistic and must be adhered to when creating a course. –

a) All students take the same subject areas within a course, and further follow the same objectives within that subject area.
b) There will be a maximum of 40 subject areas numbered 1 to 40. a list of subject areas adopted by the pre-caring course is shown in Figure 1 on page 4. Each subject area will have 20 objectives numbered 01 to 20.

e.g. HOME ECONOMICS – CHILDCARE = 10.02

c) The maximum number of students on any one course will be 100.

d) Students on the course with the same name must carry a reference number.

e.g. Smith Fred (1) Smith Fred (2)

e)Students names must be written surname first to facilitate sorting into order.

e.g. Bloggs Joseph

f) The length of student, syllabus, subject area and objective names are limited to a maximum of 56 characters, including blanks and punctuation.
g) Each word comprising a syllabus or subject area name is in upper case characters. No punctuation is placed after these titles.

A proposed layout for the course generation document is shown in Document 1 overleaf and contains the following details. –

a) Course title.
b) Course syllabus – selected from the subject areas.
c) Objectives required from within the subject areas.
d) Names of students taking the course.
e) Name of course tutor.

Other details which could be of benefit if included are: –

a) Course number if one is used.
b) Telephone number and room number of course tutor.
c) Name of the deputy for the course tutor.

It is essential that a contact is named to enable queries to be dealt with efficiently.

ii) Comment Documents for Objectives within a Subject Area.

This document allows the objective comments specified to be entered onto a computer file for use during report writing.

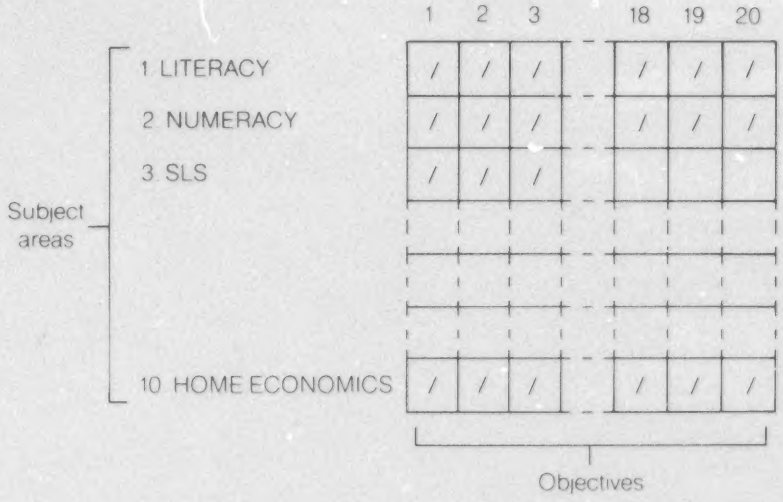
The following conditions have been established as being realistic and must be adhered to when preparing comments: –

a) The documents will be supplied with the consistent numbering system as already specified.

Document 1

Course Generation Document

Course Title: PRE-CARING
Course Syllabus:



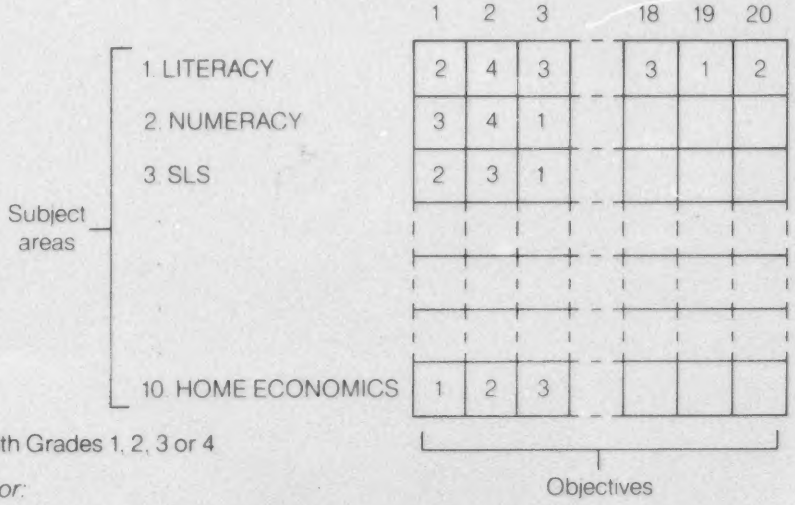
Course Students:
1.
2.
9.

Course Tutor: Room Int. Tel.

Document 2

Course Update Document
Course Title: PRE-CARING
Student:

Date: 07-05-82
Course Syllabus:



Sections with Grades 1, 2, 3 or 4

Course Tutor:

b) Objective comments to be stored as data on the computer must not contain more than 220 characters, including spaces and punctuation. No word underlining is allowed and each comment must finish with a full stop.

Facilities will be available on the computer to add, delete or inspect/amend comments within this file.

iii) Course Update Document.

This document is used to update student records on a regular basis and to this end it is essential that updating documents must be available, completed at a specific time and place. A proposed layout for the course update document is shown in Document 2.

The following conditions have been established as being realistic and must be adhered to when preparing student update documents: –

a) The records require updating once every 2 weeks.
b) A specific update document will be used; course tutors will complete the relevant objectives within a section area for their course.
c) An update document every 2 weeks will be required for each student.
d) The grading of objectives within a section area will take the form 1, 2, 3, 4 the highest grade being 1. Unused objectives will be left blank.
e) During updating the computer will display the current position of the students' grades, and only those which differ on the update document will be altered.

It must be noted that the accuracy of this system is dependant on accurate data being supplied to the Symbolic Programming System SPS, and the accuracy with which the SPS types it in. Certain gross errors will be checked for by the computer, but errors within the acceptable limits of input will be entered.

C. Information output
The output of information will take the form of: –

1. The student report presented on a terminal.
2. A printed copy of the student report.

A proposed layout of the student report is shown in Document 3, containing the following details: –

a) Course title.
b) Students' name.
c) Subject areas with relevant objective comments.
d) Course tutors' name.

Program operation
The software package consists of four programs, described in detail later. A main menu program allows access to other programs for Course Generation, Subject Area records and Student Reports. All data is held on disc files described later, to which any program may reference.

A flowchart figure D/1 giving a schematic guide to the software package is provided.

A flowchart figure D/1 giving a schematic guide to the software package is provided.

A large proportion of the time taken to run this program, is in accessing disc files, both for storage and obtaining data. There will be periods when the computer will be processing information, and no operator intervention is necessary, these are identified by messages on the screen.

In general, to process any information, the operator selects the required option from a menu and answers any of the questions displayed. All operator responces should be concluded with 'RETURN', shown by ‹cr› in the following text. The operator responses are shown boxed in the following text.

e.g. PRE-CARING ‹cr›

During edit mode the operator can:

'A'‹cr›=advance
'I'‹cr›=insert data
'D'‹cr›=delete data
'*'‹cr›=exit the editing facility

To use the package the user must first switch on the terminal allowing time to warm-up, then the user must log into the correct account and enter:

'RUN DP1: RECMEN'‹cr›

The package will now display the main menu.

E. Program (i): RECMEN

Purpose: –

a). Allow program selection from the main menu.
b). Automatically load and run the selected program.

When: –

a). To begin processing.
b). Automatically at the end of every program.

All programs should be loaded by this menu.

To exit:

Enter program selection 4).

The main menu is shown in Figure E/1

PROFILE ASSESSMENT SCHEME

– –MAIN MENU– –
1). Course Generation
2). Subject Area Records
3). Student Reports
4). Exit Package

Enter required option followed by 'RETURN'

1 cr

Figure E/1. Program

When an acceptable selection has been entered the following message will be displayed on the screen: –

Processing– –

The 'RECMEN' program now loads the required program into memory, this may take some time since they are lengthy programs.

Figure D/1. shows how the selection of an option automatically loads the correct procedure.

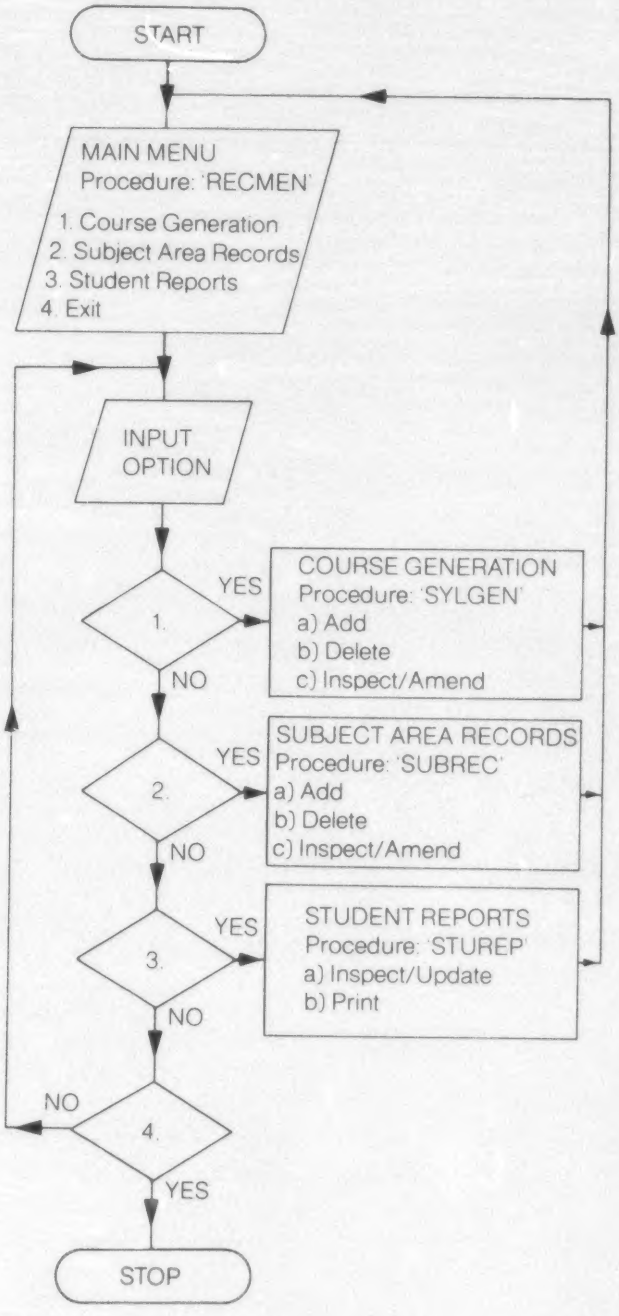


Figure D/1. 'RECMEN' – Main procedure flowchart

E. Program (ii): SYLGEN

Purpose: –

a). To provide an index of courses within the assessment scheme.
b). To allow the addition of new courses to the assessment scheme.
c). To allow the deletion of outdated courses.
d). To provide an edit facility for the addition and deletion of subject areas, also providing a similar edit facility for the course students.

When: –

a). To obtain information on the number and type of courses within the profile assessment scheme.
b). To add to the scheme a syllabus and the names of the students for the new course.
c). To delete outdated courses.
d). To amend the subject areas within a course e.g. add new ones, delete unwanted areas.

To exit:

Enter program selection 5.

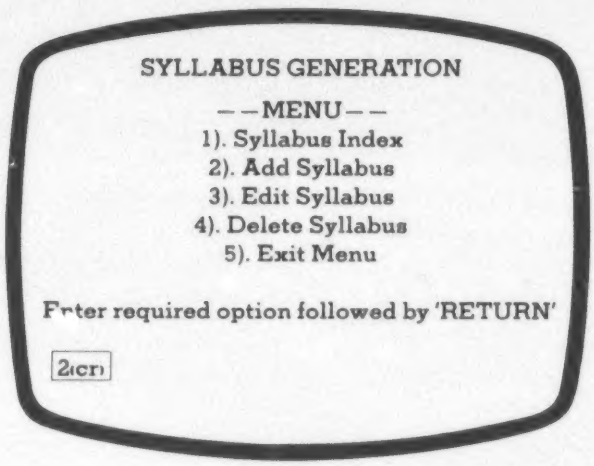


Figure E/2. Syllabus generation menu

Figure E/3 shows how the selection of an option, automatically loads the correct procedure and returns to the Syllabus Generation menu after use.

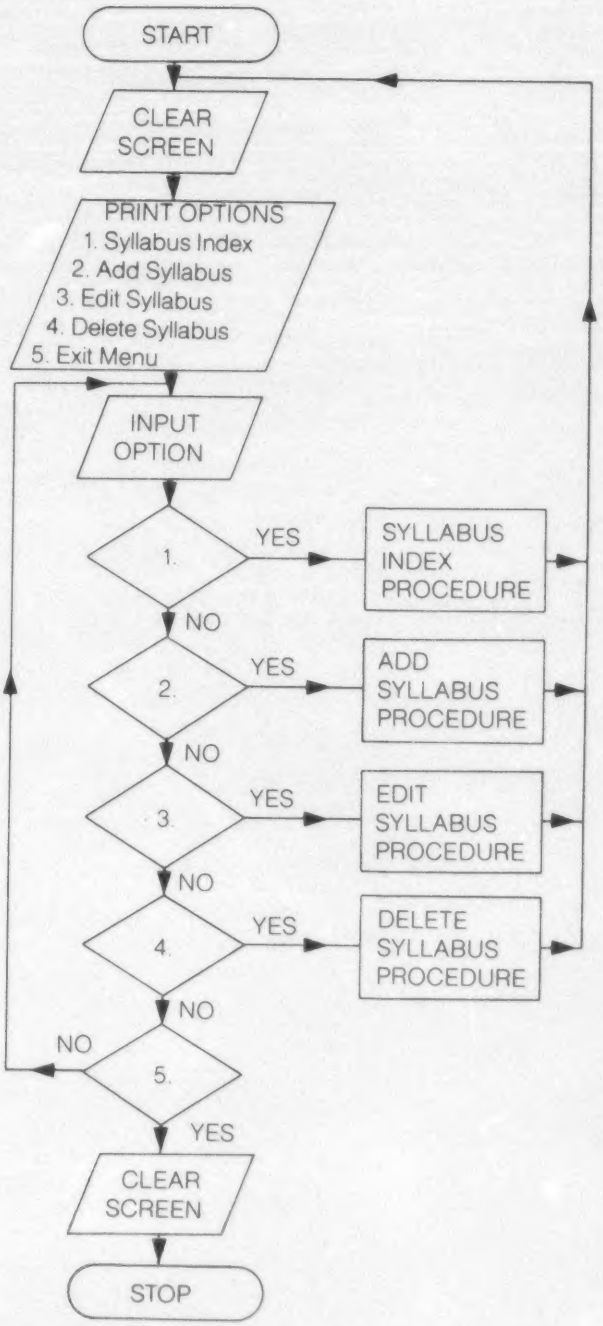


Figure E/3 'SYLGEN' FLOWCHART

When selection 1 Syllabus Index is entered, the screen will display the information shown in Figure E/4.

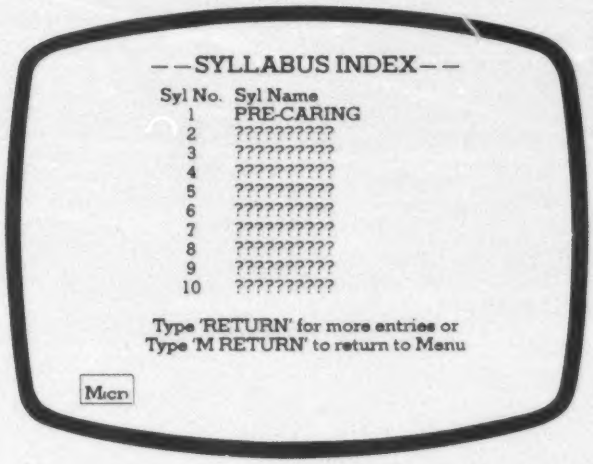


Figure E/4

When selection 2 Add Syllabus is entered, the screen will display the information shown in Figure E/5.

Figure E/5

The new syllabus name is entered, up to 56 characters long, including blanks in upper case characters.

The program will then prompt for the course tutor name by displaying the information shown in Figure E/6. The tutors name can be up to 56 characters long including blanks.

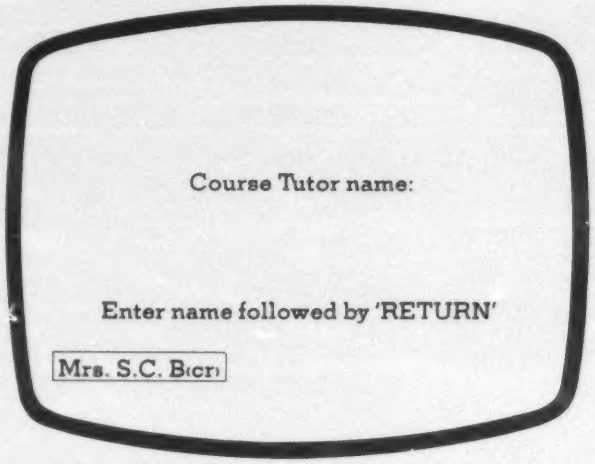


Figure E/6

When the new syllabus name and course tutor name have been entered a file has to be created on disc. This will take some time and the following message will be displayed:

Processing--

Once the file is ready to accept the syllabus details, the information is displayed as Figure E/7.

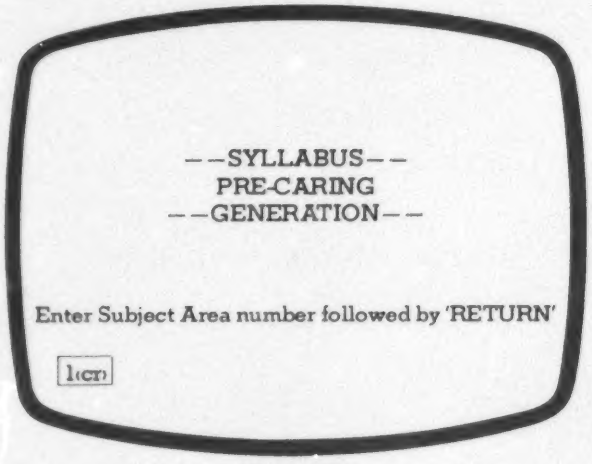


Figure E/7

Valid subject area numbers are 1 to 40. If the number entered is not in the range or is non-integer, then the following message will be displayed:--

?Syntax Error. Type 'RETURN'

When a valid subject area is entered, it is then necessary to enter the required objectives within the subject area. The following information Figure E/8 is displayed:

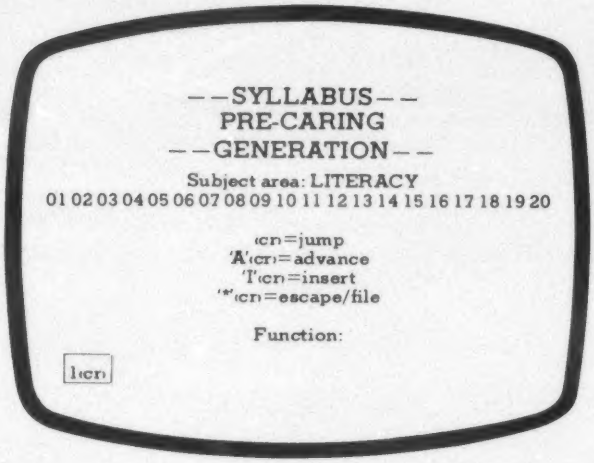


Figure E/8

Each objective is indicated in turn by a small arrow; the four functions allowed are:

‹cr› – does not include that objective
'A'‹cr› – advances to the next subject area
'I'‹cr› – inserts that objective into the syllabus
'*'‹cr› – files the syllabus

When all the required subject areas and their objectives have been entered, the process is terminated by '*' ‹cr›. The syllabus is now stored permanently on a disc file, during which the following message will be displayed: –

Processing – –

Having created the syllabus it is now necessary to have on file the names of the students taking the course.

In order to get this information, the screen shown in Figure E/9 is displayed:

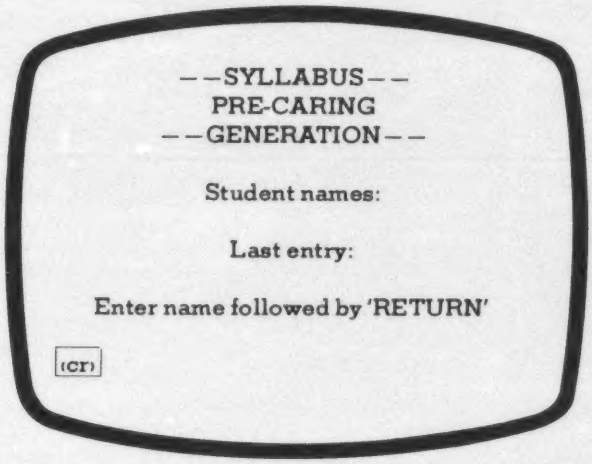


Figure E/9

The names of the students taking the course must now be put onto file surname first. Student names can be up to 56 characters long including blanks.

The last student name entered is displayed on the screen. When all student names have been entered '*'‹cr› will file the information permanently on disc. This may take some time and the screen will display: –

Processing – –

When selection 3 Edit Syllabus is entered, Figure E/10 is displayed on the screen:

Figure E/10

The course name must be entered exactly as it was described during course generation (i.e. same spelling, character case and punctuation), otherwise an error will be displayed and the entry will not be accepted.

The system will now go and find the relevant file and load it into memory.

In order to identify the area to be edited the screen displays the information shown in Figure E/11.

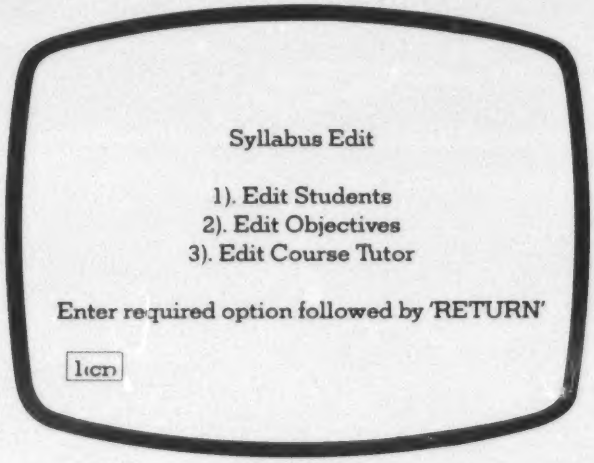


Figure E/11

A choice is made which will result in Figure E/12, E/13 or E/14 being displayed.

If option 1 Edit Students is selected, Figure E/12 will be displayed

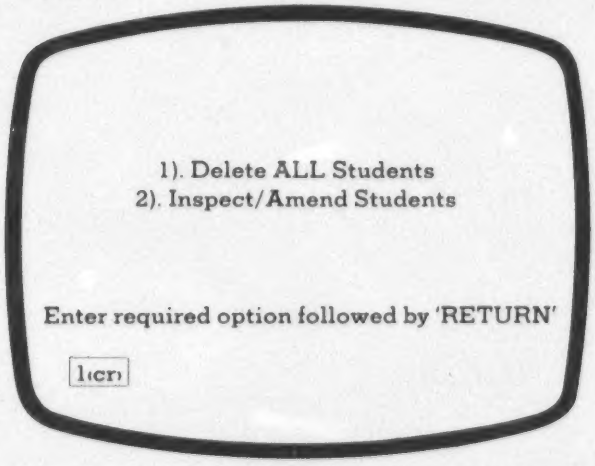


Figure E/12

With selection 1 ALL student names are deleted, as would be required at the end of the year.

With selection 2 individual student names can be inspected, deleted or inserted. Figure E/13 shows the screen displayed for this function:

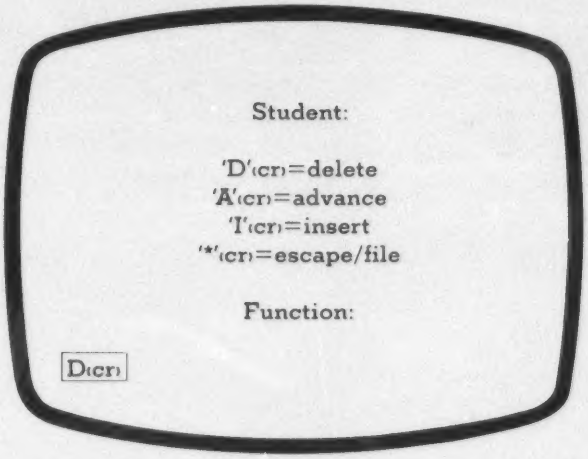


Figure E/13

The function needs to be entered:

D⟨cr⟩ – to delete that student
A⟨cr⟩ – to advance to next student
I⟨cr⟩ – to insert any student
*⟨cr⟩ – to end selection 2.

The file on disc will now be amended as directed, and the screen will now display:

File creation/deletion
Student name sort
Storing File

The user will now be returned to Syllabus Generation menu.

If 2 Edit Objectives is selected the information is displayed as in Figure E/14.

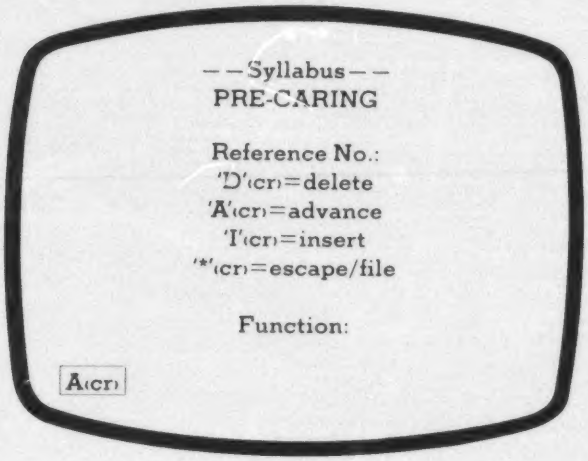


Figure E/14

The function needs to be input:

D⟨cr⟩ – to delete that objective
A⟨cr⟩ – to advance to next objective
I⟨cr⟩ – to insert objective in correct position
*⟨cr⟩ – to end editing objectives

The file on disc will now be amended as directed and the user will be returned to Syllabus Generation menu.

If option 3 Edit Course Tutor is selected the screen shown in Figure E/15 is displayed.

Figure E/15

The previous course tutors name will be replaced with the name entered, and the user will be returned to Syllabus Generation menu.

When selection 4 Delete Syllabus is selected the information will be displayed as shown in Figure E/16

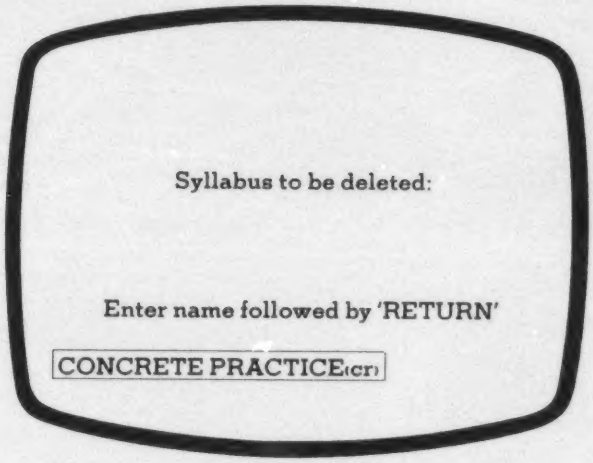


Figure E/16

The syllabus will be deleted and the user returned to the Syllabus Generation menu.

The syllabus name must be entered exactly as before in course generation (i.e. same spelling, character case and punctuation), otherwise an error will be indicated.

E. Program (iii): SUBREC

Purpose: –

a). To provide an index of subject areas within the profile assessment scheme.
b). To allow the addition of Subject Areas to the scheme.
c). To allow the deletion of Subject Areas from the scheme.
d). To provide edit facilities for the addition and deletion of objectives within the subject areas.

When: –

a). To obtain the number and type of subject areas within the scheme.
b). To add to the scheme further Subject Areas.

c). To remove unwanted Subject Areas from the scheme.
d). To amend the objectives within the Subject Areas.

To exit: –

Enter program selection 5.

The Subject Area menu is displayed as shown in Figure E/17.

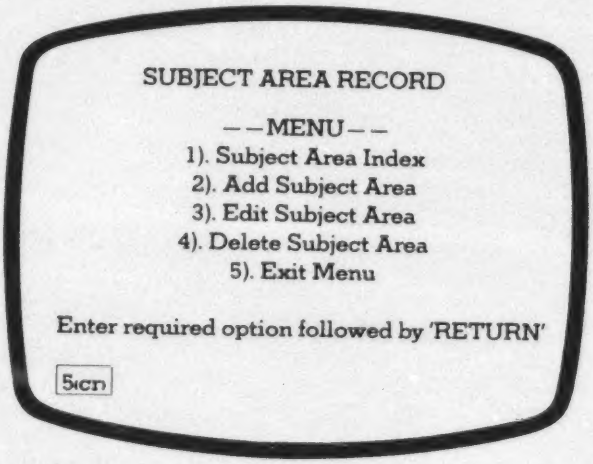


Figure E/17

Figure E/18 shows the selection of an option, automatic loading of the correct procedure and return to the Subject Area main menu after use.

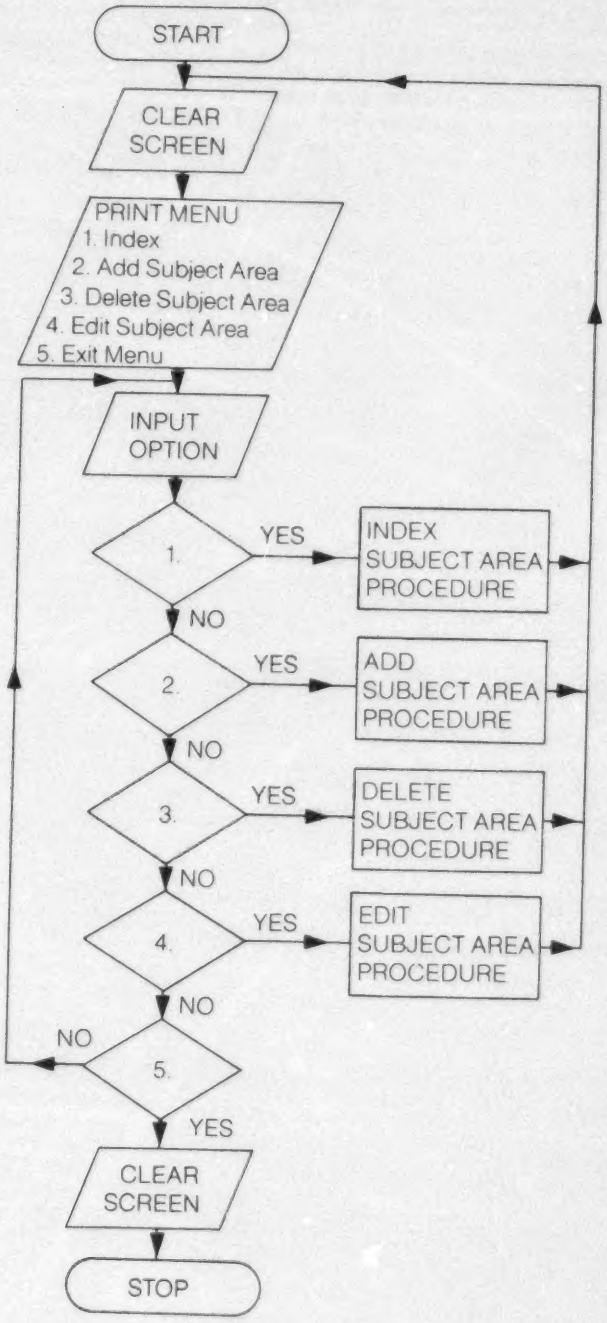


Figure E/18 'SUBREC' FLOWCHART

When option 1 Subject Area Index is selected the screen shown in Figure E/19 is displayed

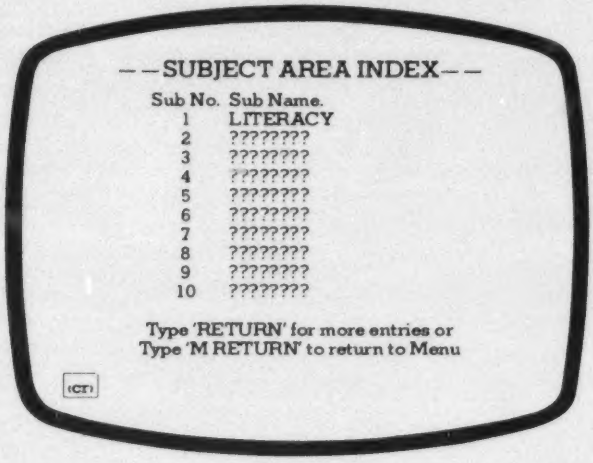


Figure E/19

When option 2 Add Subject Area is selected the screen shown in figure E/20 is displayed

Figure E/20

When the new subject area name is entered, it has to be added to the file. This will take some time and the following message will be displayed: —

Pre-Extending File

The file is now ready to accept new subject area details. Details to be entered are displayed as per Figure E/21

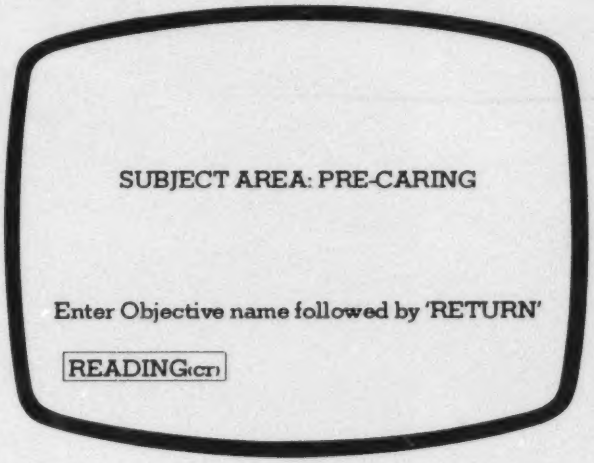


Figure E/21

The four grades of comment are entered for each objective within a subject area number. When the subject area or session is complete type '*'(cr) to return to the Subject Area menu.

When option 3 Edit Subject Area is selected the screen is shown as in Figure E/22.

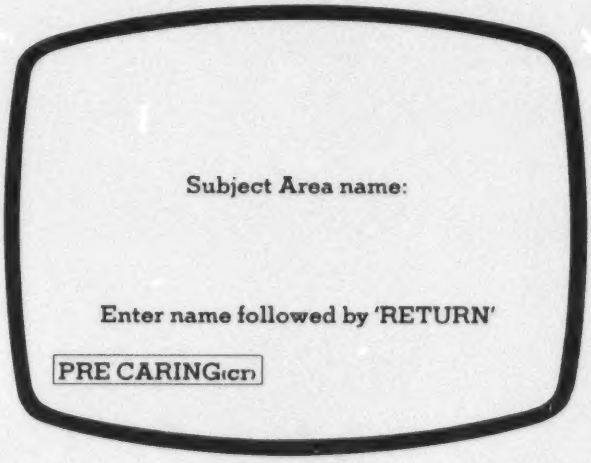


Figure E/22

The system will now find the specified subject area on file and display the following message as shown in Figure E/23.

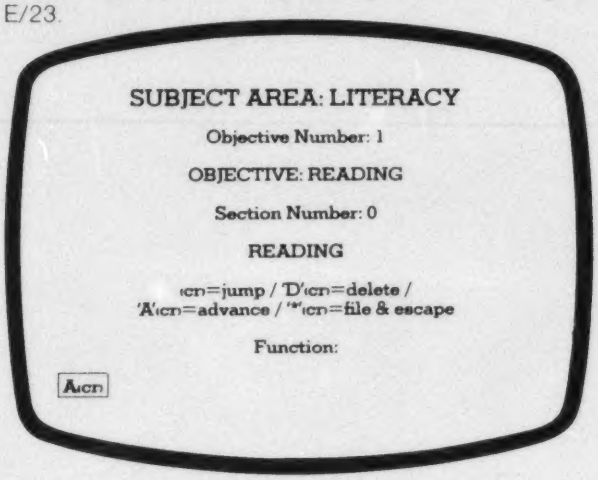


Figure E/23

Enter the edit selection: –

↵ – will jump onto next objective section.
'D'↵ – to clear that objective.
A'↵ – to advance to next objective.
'*'↵ – exit to menu.

New section comments are added by entering them when the required section is displayed, followed by 'RETURN.'

When option 4 delete Subject Area is selected the screen displays the information as shown in Figure E/24

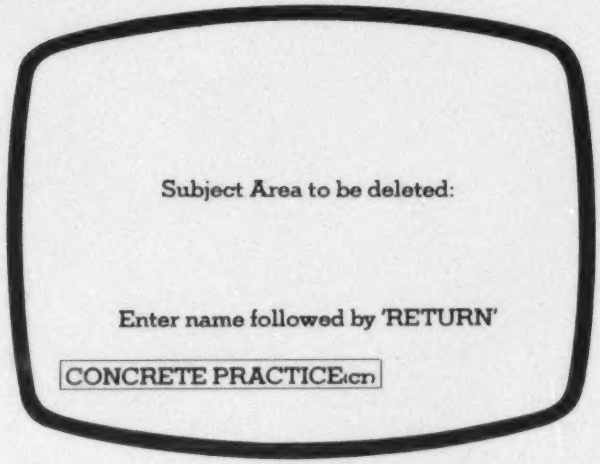


Figure E/24

If the subject area is found a message will be displayed and the subject area deleted, then the user will be returned to the Subject Area Record menu.

Once a subject area is deleted all subsequent subject areas will resort so that the subject area numbers will change. Any references to subsequent subject areas will thus be incorrect.

E. Program (iv): STUREP

Purpose: –

a). To allow the updating of student records.
b). To produce student reports.

When; –

a). Every fortnight to update student assessment records.
b). On request to obtain an up to date profile assessment report on a student.

To exit: –

Enter program selection 3).

The Student Report menu will be displayed as shown in Figure E/25.

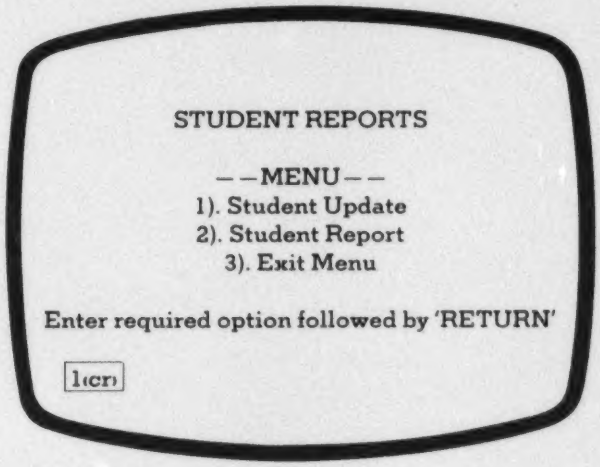


Figure E/25

Figure E/26 shows the selection of an option, automatic loading of the correct program and return to the Student Report main menu after use.

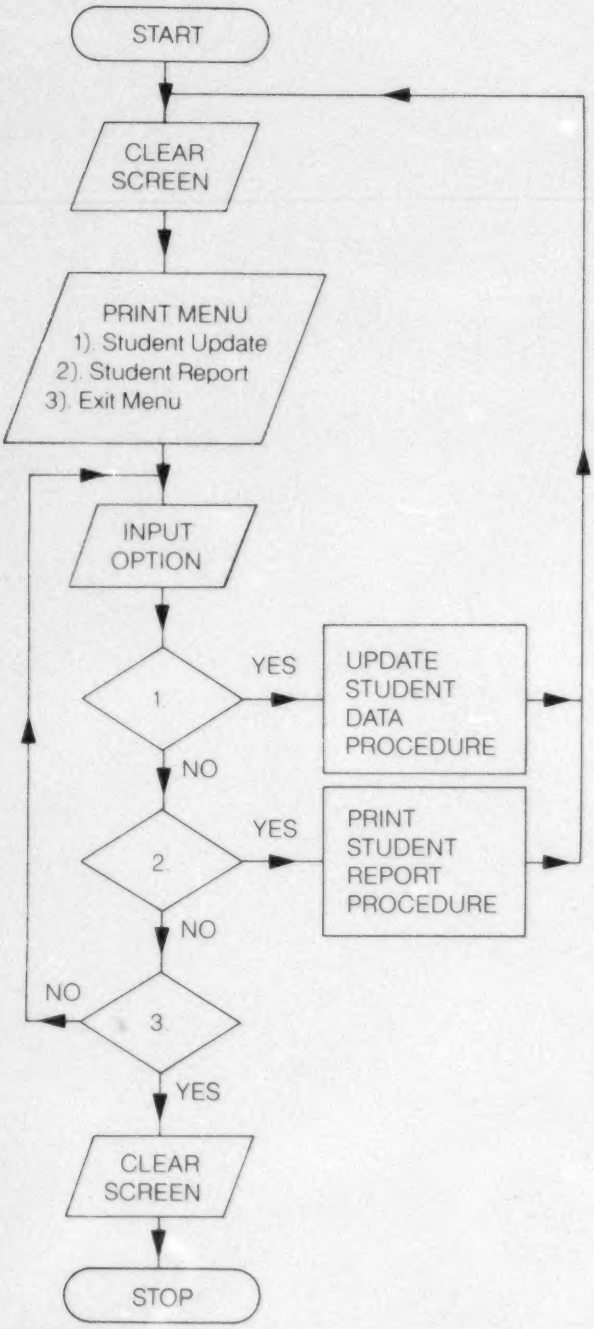


Figure E/26 STUREP FLOWCHART

When option 1 Student Update is selected the screen as shown in Figure E/27 is displayed: –

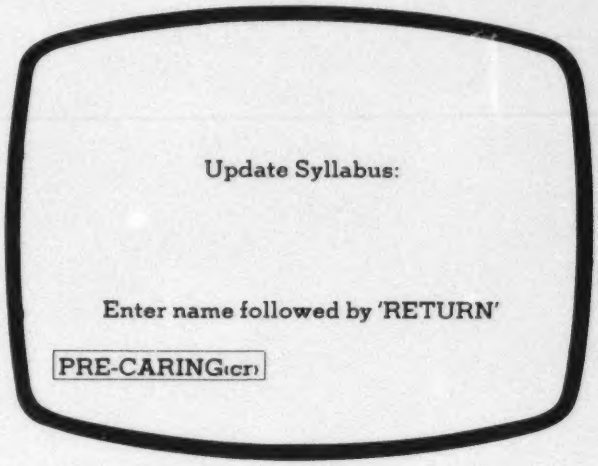


Figure E/27

The relevant syllabus will now be obtained from files and the following information displayed as shown in Figure E/28.

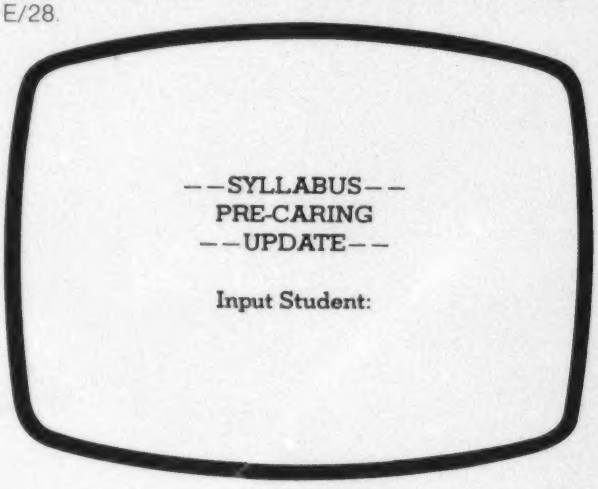


Figure E/28

The student record will be obtained and may be modified using the next screen Figure E/29.

The relevant syllabus will now be obtained from files and the information displayed as shown in Figure E/29.

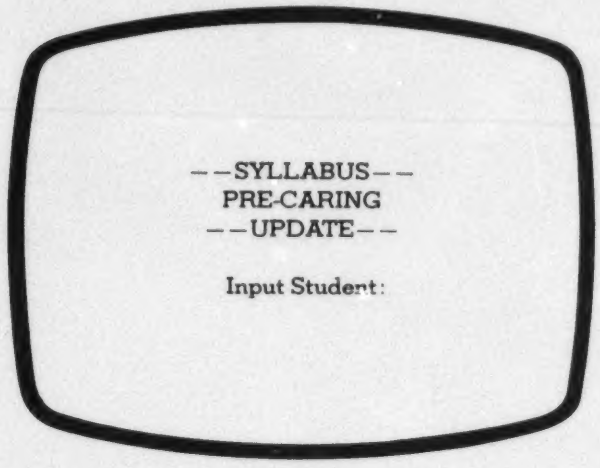


Figure E/29

The student record will be obtained and may be modified using the next screen Figure E/30.

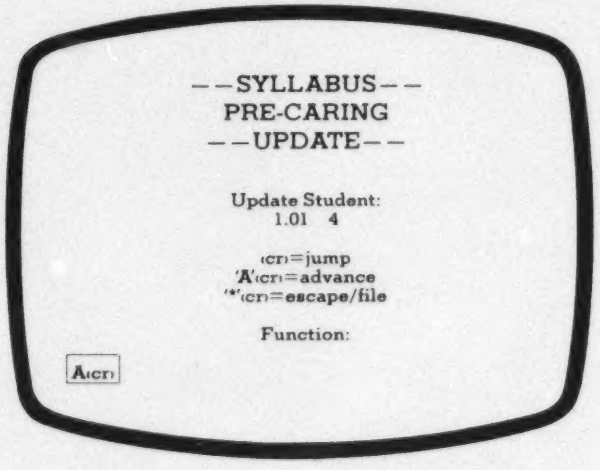


Figure E/30

A student's grades will automatically be set to section '4' in the objective comments when the syllabus is generated. To alter the grade, '1', '2', '3' or '4' can be entered. To skip to the next objective, type ⟨cr⟩; to advance to the next student type, 'A'⟨cr⟩, and to store the changes on disc, type '*'⟨cr⟩.

When option 2 Student Report is selected the following information will be displayed as shown in Figure E/31.

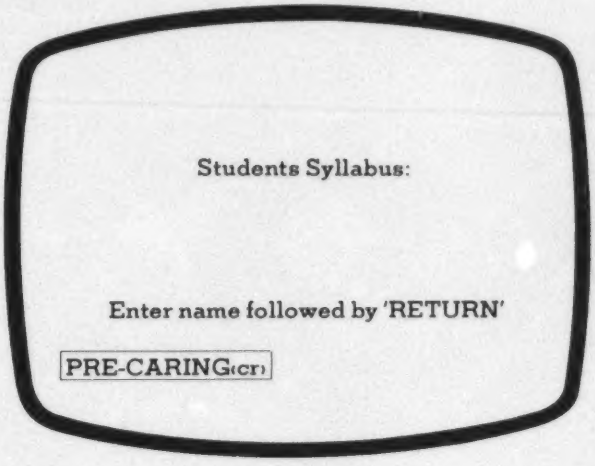


Figure E/31

The syllabus name is entered and the relevant records will be retrieved from disc files. When the records are in memory, the screen as shown in Figure E/32 will be displayed.

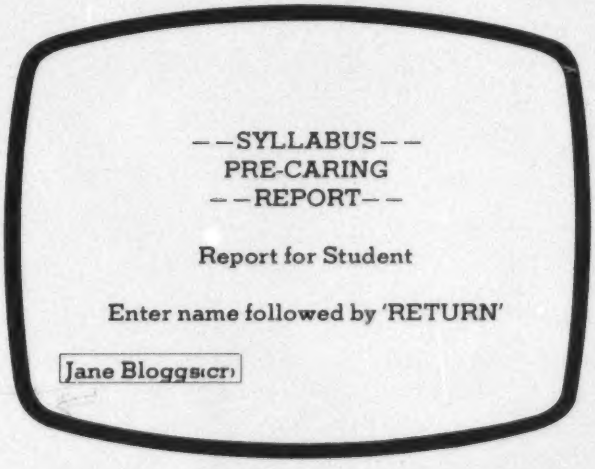


Figure E/32

The name of the student is now typed in, or '*'⟨cr⟩ can be entered to return to the menu.

The student records will now be accessed and stored in memory. In order to look at these records the following screen Figure E/33. will be displayed.

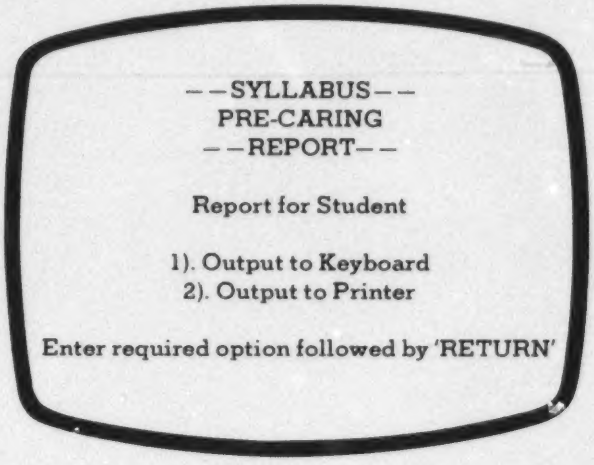


Figure E/33

If option 1 Output to Keyboard is selected the report will be displayed on the users VDU for visual checking, with any discrepancy between the syllabus and available subject areas noted.

If option 2 Output to Printer is selected the report will be produced on a printer if it is available.

The user is then returned to Student Reports menu.

It will be necessary when printing to feed in headed paper for the first page.

FEU Publications

Computer aided profiling is one of a number of FEU publications intended to inform teachers and others and to stimulate professional discussion about matters of concern to the FE service.

Other FEU publications in the Occasional Paper series include:

Microelectronics in FE: some personal perceptions. October 1981 (Order No. 9598)

This report by Dr Ken Dean Principal of South East London College describes, from a personal point of view,a fast moving field of activity.

The document should help, in part at least, the education system to appreciate the nature of accelerating technological change, which is distorting and elongating the conventional spectrum of skills that are required by society.

On the basis of this report, there are few skills that we can discard at the moment from educational programmes. Students generally will require more not less skills to cope with changing jobs and technology.

Computer Aided Design in FE: some suggestions on the inclusion of CAD topics in Mechanical Engineering courses. November 1982. (Order No.9826)

This document, by Peter Ingham of the City of Birmingham Polytechnic, is intended to give guidance to those concerned with the introduction of Computer Aided Design (CAD) into technical curricula. Whilst specially related to mechanical engineering, it should also prove useful to those in other disciplines. The author considers as inevitable the widespread adoption of CAD by British Industry. Further education will, therefore, have an obvious role to play in CAD development, if it is to remain a significant contributor to technological updating.

Towards the electronic office: on overview of the curricular implications of new technology for office and business education and training September 1983. (Order No. 163)

Commissioned by the FEU from Christine Disney, Computer Consultant, this publication reviews the curriculum implications of new office technology as they have appeared recently.

The early sections of the document describe a growing awareness and use of information technology by industry and commerce. The latter sections describe the ways in which the training and education systems are reacting to a rapidly changing situation.

Copies of these documents (which are free of charge) are obtainable, while stocks last from the Publication Despatch Centre, Department of Education and Science, Honeypot Lane, Canons Park, Stanmore, Middlesex HA7 1AZ.

A complete list of FEU publications is also available from the above address.

The FEU has a number of Research projects (RPs) ongoing in the microelectronic field:

RP 55 Computer literacy in vocational preparation schemes.
RP 59 Review of Microelectronics in FE.
RP 65 Robotics – a curriculum module for technicians.
RP 80 Computer assisted numeracy profiling.
RP 86 A computerised profiling scheme of numeracy, communications and media studies.
RP 87 Computer-aided profile assessment and curriculum design across a college of FE.
RP 94 Computer appreciation for all full-time and part-time day students.
RP 104 Introduction of computer studies and "hands-on" experience into lower level courses.
RP 106 Word processing curriculum review.
RP 108 Microcomputer use for FE students.
RP 110 A computer based curricular provision for rural communities.
RP 118 Computer literacy for UK shipping management.
RP 119 The implications on FE curricular of the introduction of the robot.
RP 120 Identification of training requirements in computer-aided engineering for smaller firms.
RP 130 Information technology in FE.
RP 151 Computer aided design and manufacture.

Details of these Projects are available from FEU, Room 5/89, Elizabethen House, York Road, London SE1 7PH.